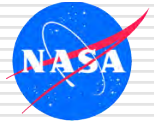


SEAC⁴RS-NA Theory Breakout Group

*SEAC4RS Science Team Meeting
April 29-May 1 2013*

Theory (Modeling) Breakout Goals



☐ **Pre-mission activities**

- Intercomparison of BB emissions
- Assess analysis climatology
- Assess forecast skill
- Coordination D-AQ/HS3

☐ **On-line forecasting products**

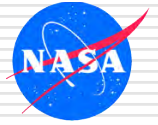
- Standardized plots
- In-situ sampling (e.g., aerograms)
- Integration into MTS
- Data access

☐ **During-mission activities**

- Daily ChemWx Briefings
- Ad-hoc data analysis w/ teams
- Analysis sampling along ER-2, DC-8 flight path (first look)
 - ☐ Archive, ICARTT format

☐ **Post-mission**

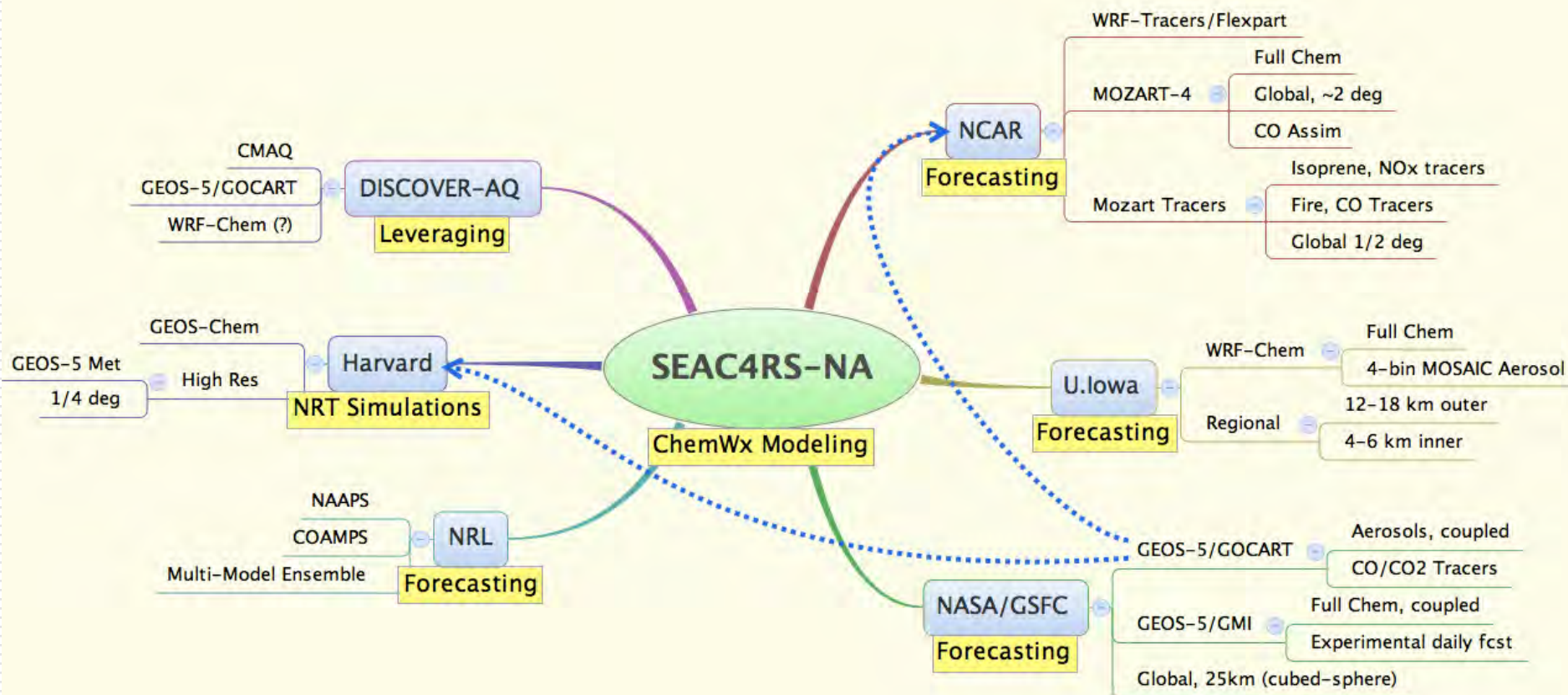
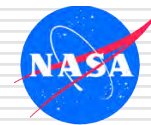
List: seac4rs-models@lists.nasa.gov



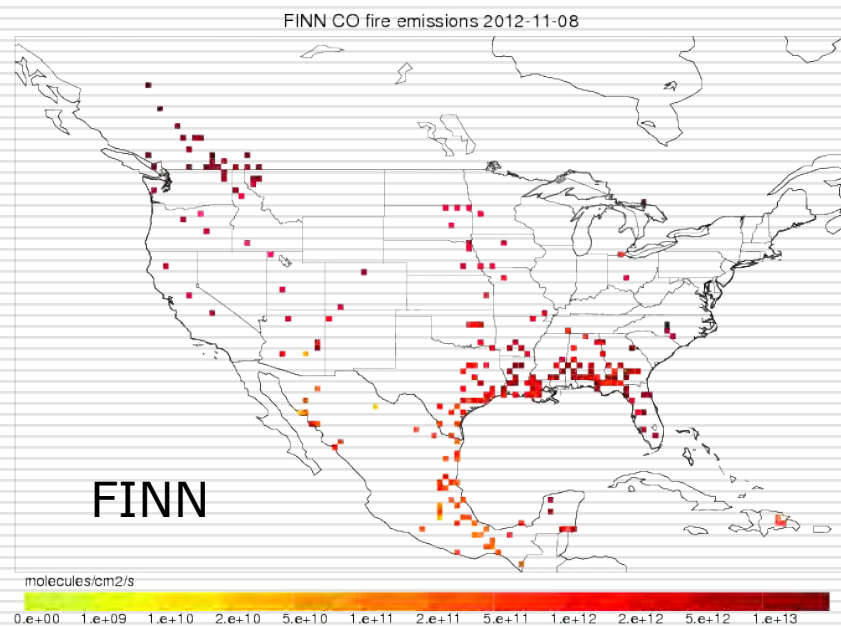
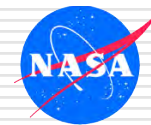
Assessment

- ☐ Convection
 - Hourly precip
 - ☐ Transport
 - ☐ Aerosols
 - Aod
 - Aaod
 - Vertical structure
 - PBL
-

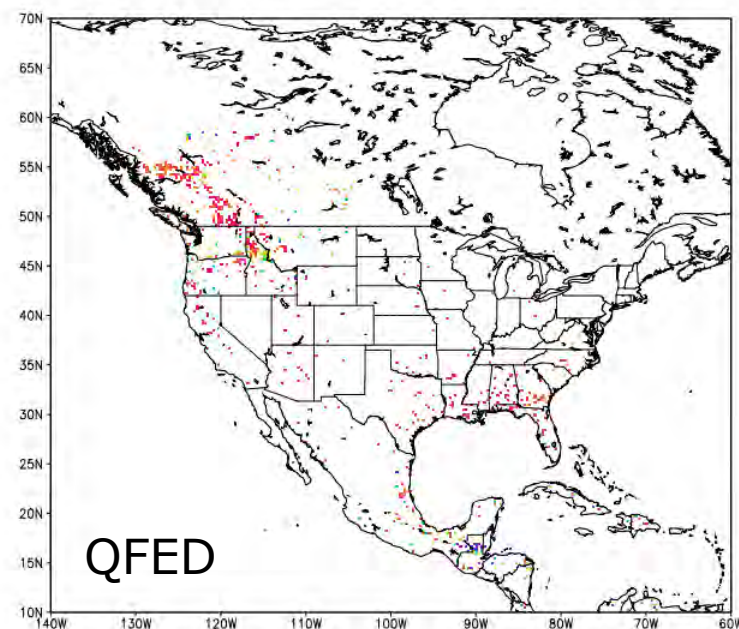
SEAC4RS-NA Modeling Capabilities at a Glance



Biomass Burning Emission Intercomparison



JLA/IGES

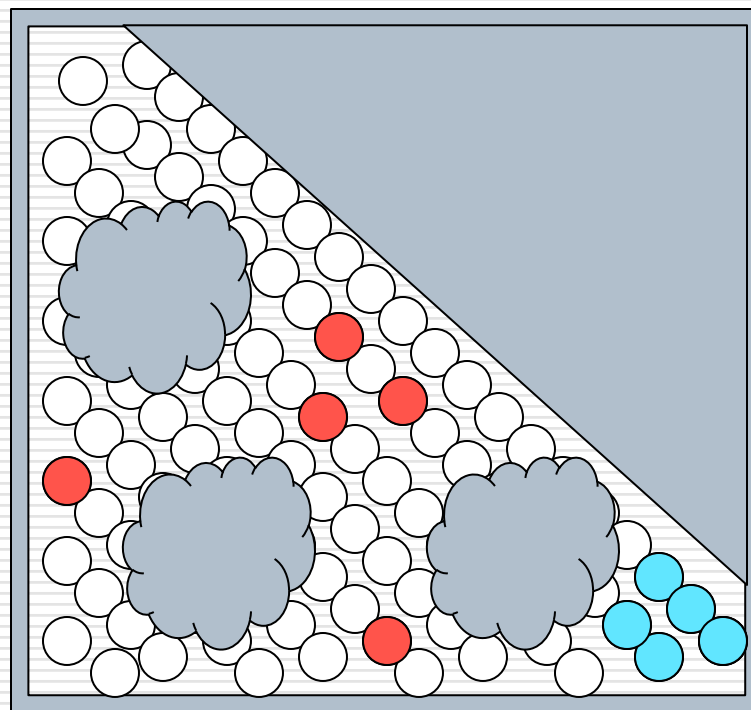


2013-04-3

Gridding Biomass Burning Emissions

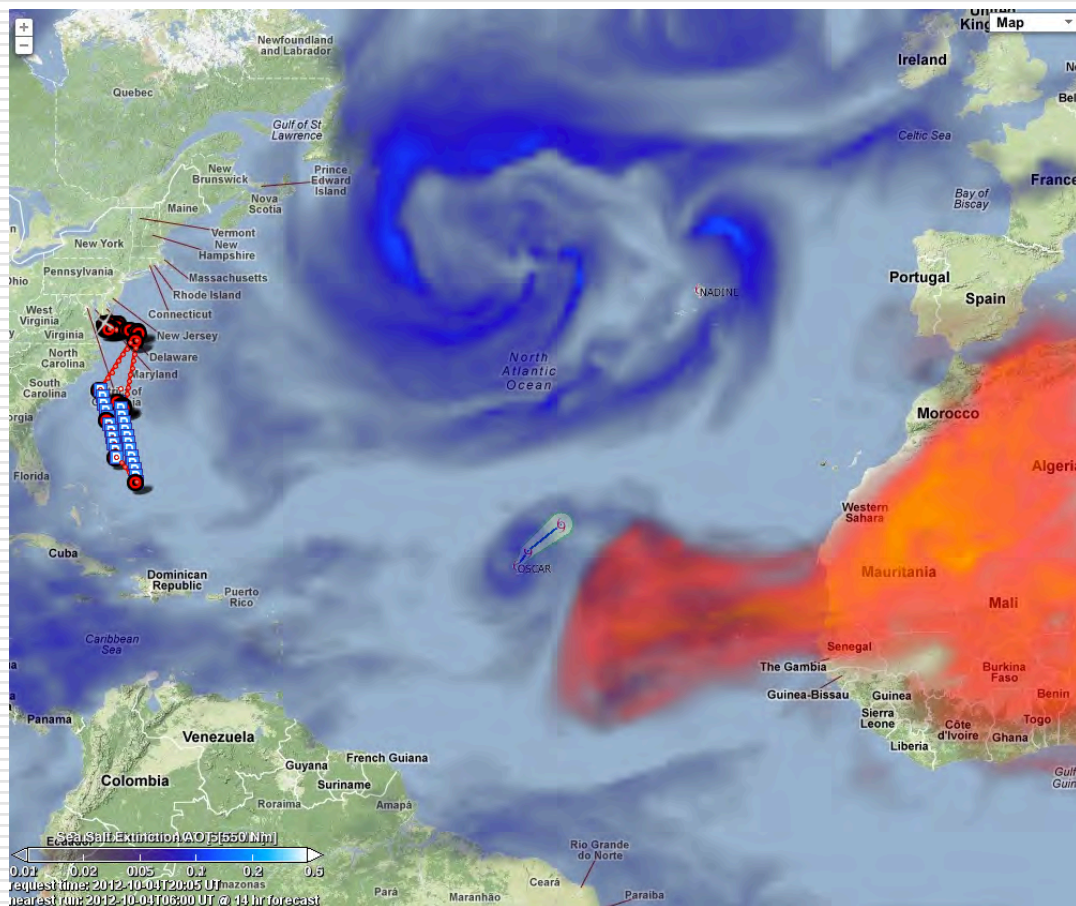
- Intercompare both
 - Pixel level emissions
 - Grid-box emissions

Model grid-box

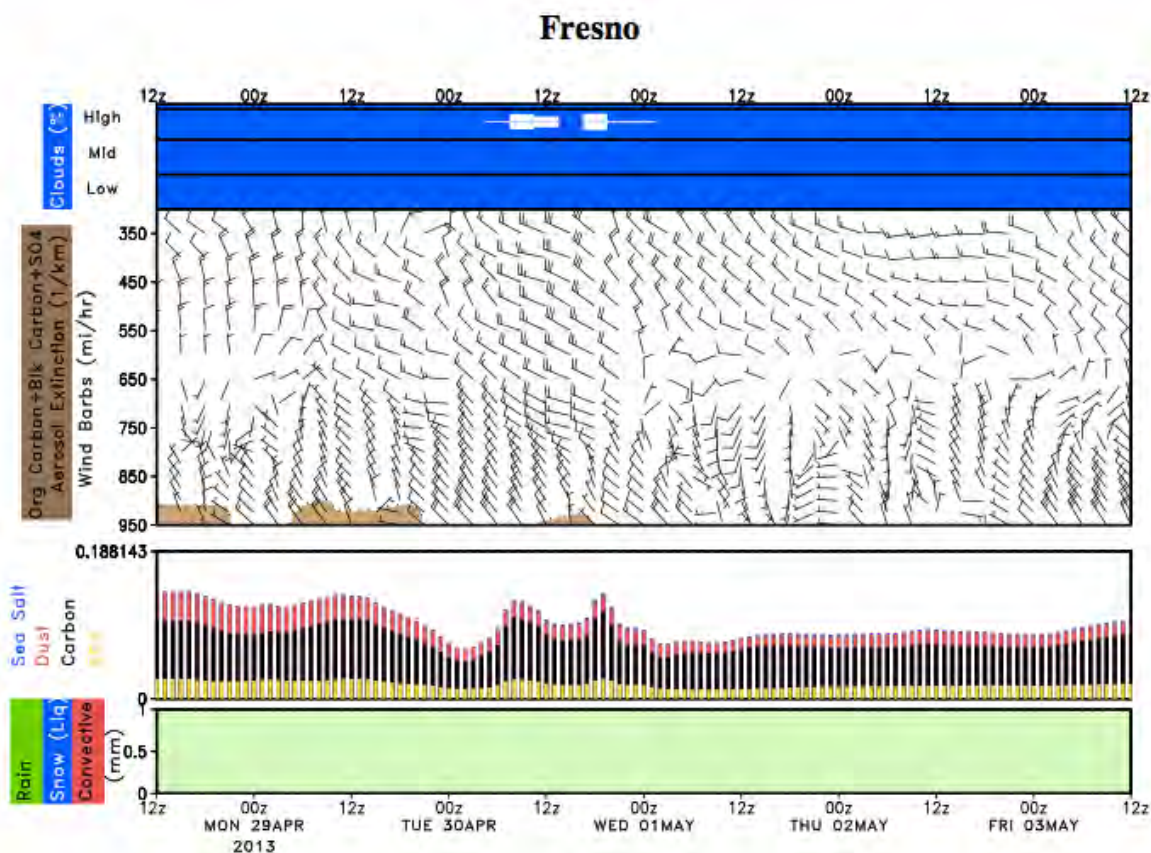


● burning ○ not burning ● obscured ● water

MTS Integration



Aerograms



GEOS-5 Aerograms

| National | International |
|----------|---------------|
| Fresno | Select |

- [OC Organic Carbon Extinction](#)
- [BC Black Carbon Extinction](#)
- [ALL \(OC + BC + SU\) Extinction](#)
- [SS Sea Salt](#)
- [DU Dust](#)
- [SU Sulfate Extinction](#)
- [CO Concentration](#)